



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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Dirk Kempthorne, Governor  
Toni Hardesty, Director

March 31, 2006

Mr. Norm Linton, Area Manager  
Potlatch Corporation  
1100 Railroad Avenue  
P.O. Box 386  
St. Maries, Idaho 83861-0386

Subject: Avery Landing Site

Dear Mr. Linton:

We have received the draft document "Failure Analysis and Preliminary Corrective Action Work Plan, Avery Landing Site, Avery, Idaho", dated March 17, 2006 completed by Farallon Consulting, L.L.C. The document was prepared to address releases of petroleum hydrocarbons from the Avery Landing site to the St. Joe River. The 1994 Consent Order, and the 2000 Modification to the Consent Order, provides that Potlatch must prevent petroleum from entering and impacting the river. It is the understanding of the Idaho Department of Environmental Quality (DEQ) that the Potlatch Corporation (Potlatch) and its consultant, Farallon Consulting L.L.C., are proposing to conduct an assessment to determine the cause or causes of the releases. Once the release mechanism or mechanisms are known, Potlatch will propose remedial alternatives in a Remedial Action Work Plan to prevent further release of petroleum hydrocarbons from the Avery Landing site to the St. Joe River.

DEQ has reviewed the document submitted and has the following comments:

*Section 4.0 Assessment of Failure Alternatives*

1. The natural ground water flow at the Avery Landing site would most likely be expected to flow north to south toward the St. Joe River. Placement of an impermeable wall adjacent to and along the river's length would most likely cause ground water to flow either around and/or underneath. Verifying this change in flow conditions would be helpful in determining possible discharge pathways to the river. How many wells will be surveyed and used to obtain water level measurements? Where are these wells located?
2. Given what could be a very transitory ground water-surface water condition would monthly measurements be sufficient for establishing ground water flow conditions over the period suggested?

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3. If ground water is found to be flowing around the containment wall would this necessarily rule out a tear in the liner as a release mechanism?
4. The use of a model is described to evaluate flow between the site and the river. What type of model will be used and what information will be used to construct it? Will the model be constructed and documented following ATSM standards D5490, D5609, D5610, D5880 and D5718?
5. The work plan describes an evaluation of the fate and transport mechanisms of the LNAPL. What type of evaluation is to be done? Will this include only free product or inclusion of a dissolved phase?
6. The activities at the Avery Landing site must meet the requirements as defined in the Idaho Water Quality Standards. The section of the St. Joe River is defined as special resource water and must not be degraded (IDAPA 58.01.02). DEQ would suggest that ground water samples be obtained and submitted for chemical analysis for BTEX and PAHs (EPA methods 8021 and 8270). It would be beneficial if these results could be incorporated into the fate and transport evaluation.
7. The river levels are measured by the U.S. Geological Survey in Calder approximately 23 miles down river from the Avery landing site. How is the river level at the site to be extrapolated from the Calder gauge? If a "vertical breach" is to be determined it would appear that a few feet of elevation might be significant. Would it be better to place a staff gauge or data logger in the river adjacent to the site and survey the measuring point along with the monitoring wells?
8. As a supplement to the hydrogeological study, would the use of either visual or fluorometric tracers/dyes or electrical/electromagnetic geophysical surveys be useful? The dye could be placed directly in the collection wells or added with additional water to form a head and locate the appearance of dye in the river. The geophysical techniques would be used to determine if there is a change in electrical properties (due to water seepage) in the fill material on the riverside of the liner; although there might be some logistical problems with the rip-rap.

#### *Section 5.0 Preliminary Evaluation of Remedial Alternatives*

1. DEQ would require that any remedial alternative contain petroleum hydrocarbons within the property boundaries.

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2. It is DEQ's understanding that remedial alternatives would be applied to the site as described in the work plan. The site appears to incorporate property owned by Potlatch, Theriault and the Federal Highway Administration. Does Potlatch have permission to conduct remedial activities on adjacent property at this time?

*Section 6.0 Interim Action Plan*

1. It would be helpful to have a short description of boom inspection results submitted to DEQ after each event.

We appreciate the opportunity to review and comment on this document. If you have any questions please feel free to contact me at (208) 666-4627.

Sincerely



Gary Stevens  
Hydrogeologist

c: Terry Montoya, Farallon Consulting LLC, 320 3<sup>rd</sup> Ave. NE, Issaquah, WA 98027